

**National Aeronautics and Space Administration**  
**Headquarters**  
Washington, DC 20546-0001



Reply to Attn of: Human Exploration and Operations Mission Directorate

Ms. Marlene Dortch, Secretary  
Federal Communications Commission  
445 Twelfth Street, S.W.  
Washington, DC 20554

SUBJECT: Report No. SAT-01501 Space Station Applications Accepted For Filing, AST & Science, LLC (SAT-PDR-20200413-00034)

Dear Ms. Dortch,

The National Aeronautics and Space Administration (NASA) submits this letter in response to the posting from AST & Science LLC filed November 12, 2020, dispositioning comments regarding the Federal Communications Commission's (FCC) Public Notice of October 2, 2020, Application for Fixed Satellite Service Mobile Satellite Service.

Space traffic management is a key area of concern for NASA as the Agency looks to protect its important assets in highly populated orbits and with the growing amount of orbital debris. NASA works closely with other government agencies, international partners, and private industry to ensure the continued availability of a safe orbital environment.

Following the original comments posted on October 29, 2020, by NASA on this matter, AST & Science reached out to NASA and provided additional data on their system. NASA has since begun collaborating with AST & Science to enable the sharing of data and conjunction mitigation best practices, which, over time, should facilitate safe operations in space and result in mutual success. NASA appreciates this communication and willingness to share data. However, until this coordination has been accomplished and a plan defined, NASA cannot withdraw its technical concerns regarding the size and location of this proposed constellation.

NASA's technical comments are intended to protect Agency on-orbit mission assets by highlighting the risks associated with placement of a large constellation into this specific debris-rich orbit regime. NASA offered specific recommendations for adjustments to the proposal to mitigate negative effects to the space environment, protect all parties' assets, and enable commercial space activities.

NASA sent the email below to FCC to clarify that while technical concerns still exist, this need not preclude the issuance of the requested license, especially since NASA and AST & Science continue to work towards a positive outcome for all parties.

Should you have any questions, do not hesitate to contact me at (321) 607-2286 or [samantha.fonder@nasa.gov](mailto:samantha.fonder@nasa.gov).

Sincerely,

Samantha Fonder  
NASA Representative to the Commercial Space Transportation Interagency Group  
Human Exploration and Operations Mission Directorate, Launch Services Office

**From:** Fonder, Samantha (HQ-CF000)  
**Sent:** Tuesday, November 17, 2020 3:12 PM  
**To:** Karl Kensinger <Karl.Kensinger@fcc.gov>  
**Subject:** RE: [EXTERNAL] NASA Response to AST&Science FCC filing

Karl,

NASA does not plan to officially/publicly post a response to AST's disposition of comments they provided last week, however I wanted to close the loop with you. NASA has been working with the AST team the past few weeks and hopes to continue that relationship going forward to ensure the safety of all assets in space. AST has shown interest in collaborating and working together to mitigate risks, therefore NASA has no concern with the issuance of the requested license.

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Kind regards,  
Sam Fonder  
NASA Headquarters  
Human Exploration and Operations Mission Directorate, Launch Services Office  
321-607-2286  
[Samantha.Fonder@nasa.gov](mailto:Samantha.Fonder@nasa.gov)